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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/643,473	08/22/2000	Robert Cahn	1999-0414	8446

7590 10/10/2003
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EXAMINER

LIN, KENNY S

ART UNIT PAPER NUMBER

2154

DATE MAILED: 10/10/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/643,473

Applicant(s)

CAHN, ROBERT

Examiner

Kenny Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. Claims 1-8 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballantine et al (hereinafter Ballantine), US 6,446,123, in view of Choa et al (hereinafter Choa), US 6,549,513.

4. As per claims 1 and 5, Ballantine taught the invention substantially as claimed including a method/system for monitoring the status of a network (col.1, lines 49-52, 59-61, col.2, lines 65-66, col.3, lines 2-5), comprising:

- a. Computing a plurality of measures of network health (col.1, lines 49-54, 59-61, col.2, lines 38-56, col.4, lines 31-39); and
- b. Comparing said measures of network health to a threshold value (col.1, lines 61-67, col.2, lines 57-64, col.5, lines 53-56).

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5. Ballantine did not specifically teach that the measurements include a sum of unrouted PVC, a sum of PVC whose cost exceeds a prescribed multiple of an optimal route cost, and a sum of PVC off an optimal path. However, Ballantine taught to receive data to have the system to manipulate a wide variety of measurements (col.4, lines 33-39, 52-53, col.5, lines 7-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have Ballantine's method to compute many different measurements such as sum of unrouted PVC as one of the network health measurements as a design choice.

6. Ballantine did not specifically teach to comprise a database storing possible restoration routes and to select a restoration route from a plurality of stored restoration routes. However, Chao taught a method to manage restoration routes having a database storing possible restoration routes and to select a restoration route (col.3, lines 63-67, col.4, lines 1-4, col.8, lines 6-8, 42-49, col.13, lines 32-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ballantine and Choa because Choa's teaching of restoring routes help Ballantine's monitoring method to provide ways of network maintenance and route restoration (Ballantine, col.4, lines 12-18, col.9, lines 38-49).

7. As per claims 3 and 7, Ballantine and Choa taught the invention substantially as claimed in claims 1 and 5. Ballantine further taught to monitor said measures to sense when bandwidth needs to be added to the network (col.5, lines 14-25).

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8. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballantine and Choa as applied to claims 1, 3, 5 and 7 above, and further in view of Bentall et al (hereinafter Bentall), US 6,282,170.

9. As per claims 2 and 6, Ballantine and Choa taught the invention substantially as claimed in claims 1 and 5. Ballantine and Choa did not specifically teach to restore circuits at a rate parameterized by a value P and observe the behavior of the network; and increase the value P in the network to decrease the time customers experience unrouted traffic. Bentall taught a route restoration method that the speed for restoring circuits can be adjusted (col.3, lines 37-41, col.4, lines 29-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ballantine, Choa and Bentall because Bentall's teaching of adjusting the rate of route restoration help to speed up or slow down the restoration process in Ballantine and Choa's method according to the available capacity (col.2, lines 29-34).

10. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballantine and Choa as applied to claims 1, 3, 5 and 7 above, and further in view of Simmons, US 6,456,588.

11. As per claims 4 and 8, Ballantine and Choa taught the invention substantially as claimed in claims 1 and 5. Ballantine further taught to compute said plurality of measures of network health (col.1, lines 49-54, 59-61, col.2, lines 38-56, col.4, lines 31-39) and to determine if the measures are over a specified values (col.1, lines 61-67, col.2, lines 57-64, col.5, lines 53-56)

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and if so, then add capacity to the network (col.5, lines 14-25). Ballantine and Choa did not specifically teach that the measurements include identifying unrouted, off optimal and seriously misrouted traffic. However, Ballantine taught to receive data to have the system to manipulate a wide variety of measurements (col.4, lines 33-39, 52-53, col.5, lines 7-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have Ballantine and Choa's method to compute many different measurements as one of the network health measurements as a design choice.

12. Ballantine and Choa did not specifically teach to derate each edge of the network to have capacity of a predetermined fraction of real capacity. However, Simmons taught a routing and route restoration method to derate the capacity of the edge to route less traffic (col.5, lines 50-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ballantine, Choa and Simmons because Simmons' teaching of reducing the capacity of the edge help to permit longer edges to contain less traffic.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Commerford et al, US 6,134,671.

Johnson et al, US 6,147,966.

Lin et al, US 6,405,250.

Baker et al, US 6,073,089.

Russ et al, US 5,680,326.

Cwilich et al, US 6,498,778.

Manghirmalani et al, US 5,819,028.

Conclusion

14. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.


15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (703)305-0438. The examiner can normally be reached on 8 AM to 5 PM Tuesday to Friday and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703)305-9678. Additionally, the fax numbers for Group 2100 are as follows:

Official Responses: (703) 872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-6121.

ksl
September 29, 2003


ZARNI MAUNG
PRIMARY EXAMINER